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7 References

- AHBE, S.; BRAUNSCHWEIG, A.; MÜLLER-WENK, R. (1990): Methodik für Ökobilanzen auf der Basis ökologischer Optimierung. Schriftenreihe Umwelt Nr. 133, BUWAL, Bern, Switzerland
- Baumann, H.; Rydberg, T. (1994): Life Cycle Assessment: A comparison between three methods for impact analysis and valuation. J. Cleaner Prod. 2, 13-20
- BAUMANN, H. (1992): Utvärdering med index. Beräkning av två uppsättingar norska index. CIT-ekologic 1992:2, Chalmers Industritcknik, Gøteborg
- BAUMANN, H. (1996): LCA Use in Swedish Industry. Int. J. LCA 1, 122-126
- HANSEN, E. (1995): Environmental Ranking of Products. Environmental Project no 281, Danish Environmental Protection Agency, Copenhagen (in Danish)
- HANSSEN, O.J. (1993): Proceedings from International Workshop Product Systems Development and Improvements in a Life Cycle Context. Østfold Research Foundation, Working Paper AR02.93
- HANSSEN, O.J. (1997): Sustainable Industrial Product Systems. Dr. techn. thesis, Norwegian University of Science and Technology, Trondheim. Østfold Research Foundation, Working Paper AR.20.97
- HANSSEN, O.J. (1998): Environmental Impacts of Product Systems in a Life Cycle Perspective. A General Survey based on 18 Life Cycle Assessment Studies. J. Cleaner Prod. 6, 299-311
- Hanssen, O.J.; Ronning, A.; Rydberg, T. (1995): Sustainable Product Development. Methods and Experiences from Case Projects. Final Results from the NEP project. Østfold Research Foundation. Research Paper OR 28.95, 82 pp
- HAUSCHILD, M.; WENZEL, H. (1998): Environmental Assessment of Industrial Products. Vol. 2: Scientific Background. Institute for Product Development, Technical University of Denmark, Chapmann & Hall
- Karlson, L. (1993): Product Ecology Project. Participants' experiences. ABB Corporate Research, Väserås, Sweden
- LINDFORS, L.G.; CHRISTIANSEN, K.; HOFFMANN, L.; VIRTANEN, Y.; JUNTILLA, V.; LESKINEN, A.; HANSSEN, O.J.; RØNNING, A.; EKVALL, T.; FINNVEDEN, G. (1995a): LCA Nordic Technical Reports No. 1-9. Tema Nord 1995: 502
- LINDFORS, L.G.; CHRISTIANSEN, K.; HOFFMANN, L.; VIRTANEN, Y.; JUNTILLA, V.; LESKINEN, A.; HANSSEN, O.J.; RØNNING, A.; EKVALL, T.; FINNVEDEN,

- G. (1995b): LCA Nordic Technical Reports No. 10 and Special Reports No. 1-2. Tema Nord 1995:503
- MAGNUSSEN, K.; RØNNING, A.; MØLLER, H. (1998): Valuation in LCA. Østfold Research Foundation, OR.11.98 (in Norwegian)
- Møller, H.; Hanssen, O.J.; Lindfors, L.G.; Svensson, T.; Hoffmann, L.; Stranddorf, H.K.; Toldsted, J.T; Rønning, A. (1998): Nordic project on Implementation of Environmental Labelling Type III In the business sector (NIMBUS). Report from the pilot study on Nordic Environmental Product Declarations. Østfold Research Foundation, OR.27.98
- Myklebust, O.; Lamvik, T.; Støren, S. (1997): Nordlist LCA Project. Life Cycle Assessment in Product Development. NTNU, SINTEF, STØ, DTU. SINTEF Report No. STF38 S97001,74 pp
- Nordic Council of Ministers (NORD, 1992): Product Life Cycle Assessments Principles and Methodology. NORD, 1992:9, 288 pp
- Nordic Council of Ministers (Nord), 1995): Nordic Guidelines on Product Life-Cycle Assessments. Nord, 1995:20, 222 pp
- Nordic Council of Ministers (NORD, 1998): Common Nordic Seminar on Product Oriented Environmental Strategies (POMS). Seminar Report, March 1998
- ØKSTAD, E. (1997): Environmental Performance Indicators in Industry. Practical experiences with developing EPI's in 12 companies. European Green Table/Federation of Norwegian Business and Industrics, Oslo, 57 pp
- Pedersen, B.; Christensen, K. (1992): A Meta-Review on Product Life Cycle Assessment. Nord, 1992:9, 24-104
- RØNNING, A.; VOLD, M. (1997): Nordic Seminar on LCA. Østfold Research Foundation OR.90.97
- RONNING, A.; HANSSEN, O.J.; MOLLER, H. (1995): Environmentally Sound Product Development of Offshore Coatings. Østfold Research Foundation Project Report OR.40.95, 32 pp
- RYDING, S.-O.; STEEN, B. (1992): The EPS Environment Method. An application of environmental accounting principles for evaluation and valuation of environmental impacts in product design. Swedish Environmental Research Institute Report, Gothenburg
- RYDING, S.-O. (1993): International Experiences of Environmentally Sound Product Development Based on Life Cycle Assessment (LCA). Federation of Swedish Industries, Stockholm
- UDO DE HAAS, H. A.; WRISBERG, N. (1997): Life Cycle Assessment: State-of-the-Art and Research Priorities. LCA Documents, Vol. 1. Eco-Informa Press, Bayreuth
- VOLD, M.; RONNING, A. (1995): LCA of Cement and Concrete Main report. Østfold Research Foundation Project Report OR.32.95, 50 pp
- WENZEL, H.; HAUSCHILD, M.; ALTING, L. (1997): Environmental Assessment of Industrial Products. Vol. 1: Tools and Case studies. Institute for Product Development, Technical University of Denmark, Chapmann & Hall

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Announcement of a Special Issue: LCA in Japan

Issue Editors

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- · case studies on the electricity grid mix in Japan, air conditioner refrigerants and waste treatment of organic waste,
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